CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/KRIDL/W.No.14/CSR-12/516b/Cube/2017-18 20.01.2018

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	:	Improvements to roads and drains 2nd, 3rd, 4th & 5th cross Vinayaka Nagara (Karekallu) in Ward No.14 (Bagalagunte), BBMP, Bangalore.
* Reference	:	BBMP/DZ/AEE/TDSD/PR/251/2017-18 Dated: 13.12.2017
* Sample ID	:	RCC Drain Concrete
Technical Reference	:	IS: 516-1959 (RA-2013)
Size of cubes	:	150mmx150mmx150mm
Cross Sectional Area	:	22500 mm^2
* Grade of Concrete	:	M_{20}
Compressive Strength as on	:	28^{th} day
Sample Received on	:	20.01.2018

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.12.2017	20.01.2018	8.112	485.9	21.60
2	23.12.2017	20.01.2018	8.219	513.2	22.81
3	23.12.2017	20.01.2018	8.350	518.5	23.04

*Information is furnished by the Customer/Representative.

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Note:

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Technical Manager

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* Reference	:	BBMP/DZ/AEE/TDSD/PR/251/2017-18 Dated: 13.12.2017
* Sample ID	:	RCC Drain Concrete
Technical Reference	:	IS: 516-1959 (RA-2013)
Size of cubes	:	150mmx150mmx150mm
Cross Sectional Area	:	22500 mm^2
* Grade of Concrete	:	M_{20}
Compressive Strength as on	:	28^{th} day
Sample Received on	:	20.01.2018

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.12.2017	20.01.2018	8.118	498.6	22.16
2	23.12.2017	20.01.2018	8.200	513.4	22.82
3	23.12.2017	20.01.2018	8.308	522.8	23.24

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Job No.: CTCE/BBMP/KRIDL/W.No.14/WMM/Gradation/2017-18 08.01.2018

TEST REPORT ON GRADATION OF WET MIX MACADAM

* Customer	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements to roads and drains 2nd, 3rd, 4th & 5th cross Vinayaka Nagara (Karekallu) in Ward No.14 (Bagalagunte), BBMP, Bangalore.
* Reference	:	BBMP/DZ/AEE/TDSD/PR/251/2017-18 Dated: 13.12.2017
Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS 2386 (part-1)1963 (RA-2016)
Date of Testing	:	08.01.2018

Oven Dry Wt (gm): **5000**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits As per Morth Table 400-11
53	0	0	0	100	100
45	145	145	2.9	97.1	95-100
22.4	1590	1735	34.70	65.30	60-80
11.2	1060	2795	55.90	44.10	40-60
4.75	590	3385	67.70	32.30	25-40
2.36	485	3870	77.40	22.60	15-30
0.600	480	4350	87.00	13.00	8-22
0.075	530	4880	97.60	2.40	0-8

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Job No.: CTCE/BBMP/KRIDL/W.No.14/AIV/2017-18 08.01.2018

TEST REPORT ON IMPACT VALUE OF AGGREGATE

* Customer	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements to roads and drains 2nd, 3rd, 4th & 5th cross Vinayaka Nagara (Karekallu) in Ward No.14 (Bagalagunte), BBMP, Bangalore.
* Reference	:	BBMP/DZ/AEE/TDSD/PR/251/2017-18 Dated: 13.12.2017
* Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS: 2386 Part IV
Date of Testing	:	08.01.2018

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	386	389	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	84	85	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	302	304	
4	Aggregate Impact value = percent fines 100* (W2/W1)%	21.76	21.85	21.81

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Aggregate Impact value for Wet Mix Macadam is 30%

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Job No.: CTCE/BBMP/KRIDL/W.No.14/WMM/Shape.T/2017-18 08.01.2018

TEST REPORT ON FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

* Customer	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements to roads and drains 2nd, 3rd, 4th & 5th cross Vinayaka Nagara (Karekallu) in Ward No.14 (Bagalagunte), BBMP, Bangalore.
* Reference	:	BBMP/DZ/AEE/TDSD/PR/251/2017-18 Dated: 13.12.2017
* Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS 2386(Part 1) 1963 (RA 2016)
Date of Testing	:	08.01.2018

Sl.No.	Description	Result
1	Flakiness Index	11.65%
2	Elongation Index	13.30%
3	Combined Flakiness & Elongation Index	24.95%

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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Job No.: CTCE/BBMP/KRIDL/W.No.14/CSR-12/516b/Cube/2017-18 08.02.2018

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	:	Improvements to roads and drains 2nd, 3rd, 4th & 5th cross Vinayaka Nagara (Karekallu) in Ward No.14 (Bagalagunte), BBMP, Bangalore.
* Reference	:	BBMP/DZ/AEE/TDSD/PR/251/2017-18 Dated: 13.12.2017
* Sample ID	:	Road Concrete
Technical Reference	:	IS: 516-1959 (RA-2013)
Size of cubes	:	150mmx150mmx150mm
Cross Sectional Area	:	22500 mm^2
* Grade of Concrete	:	M_{20}
Compressive Strength as on	:	28^{th} day
Sample Received on	:	08.02.2018

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	11.01.2018	08.02.2018	8.116	487.8	21.68
2	11.01.2018	08.02.2018	8.255	499.6	22.20
3	11.01.2018	08.02.2018	8.310	518.5	23.04

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